Comments for 11 July NOAA ACCRES Meeting

By Bob Weber, [redacted]

1. The NOAA draft Rule does not have litmus test on whether an applicant has or likely will have a viable commercial business. In contrast, NRO's January 2019 RFI and explanation at the June 2019 GEOINT Symposium seeking commercial imagery sources for the 2023-era states that bidders must have a solid business plan other than USG as a customer. If the proposed Rule results in a senior-level National Security meeting, ACCRES should challenge NRO's litmus test as inconsistent with DoC intent to support private sector innovation and leadership. The Rule should not limit prospects for business success or business results.

2. Regarding SAR, TerraSAR-X by Airbus launched in June 2007. It's still operating. USG in the past challenged commercial SAR satellite applications, in part because the "fact of" classified national security SAR satellites remained classified until June 2008. The United States is now ten years beyond acknowledging a secret. Some forward movement on SAR licensing makes sense.

3. The National Defense Strategy (NDS) and National Intelligence Strategy (NIS) make clear that partnerships matter for U.S. national security. Direct downlink of SAR data to trusted allies would be consistent with Strategy. There is no point in a Rule inconsistent with U.S. policy.

4. NOAA should find out from Sandia National Laboratories if the April 2002 study titled "Regularization Analysis of SAR Superresolution" remains valid. The study found that the ability to "superresolve SAR imagery is severely limited by system noise." This may affect how NOAA decides to regulate phase history data and complex data with the Rule.

5. Imposing a condition limiting a system's daily revisit is a red herring. The current emphasis in remote sensing is use of AI / ML to discern spatial and temporal changes, regardless of the volume and timing of collected images. NGA, for example, makes clear that the agency wants companies to develop algorithms to sift through images of Known Knowns, i.e., places and activities the agency knows about. Fifty percent of NGA analysts' time is applied to Known Knowns. Human viewing of these images wastes time that could be spent on difficult tasks. This means use of smart algorithms in the analytics process is a far more important factor than whether a system can take a picture every day or every other day.

6. The meaning of "High-risk" in the Rule is vague. The concept of risk implies some sort of damage as a consequence. It's hard to imagine that licensing a commercial "High-risk" system could cause damage to the national security at Top Secret (i.e., exceptionally grave) or Secret (i.e., serious) level. Potential risk aligns more with the Confidential level (i.e., a reasonable expectation that unauthorized use of the system or its data would cause "damage" – not further defined – to national security). For this reason, the Rule should make clear to applicants what characteristics of a proposed system could cause damage and at what level. Otherwise it would be difficult for applicants to know what technical changes the Government may require.

7. The Undersecretary of Defense for Intelligence (USDI), Kari Bingen, said in June at the GEOINT 2019 Symposium that "we are on the cusp of big changes in space systems." "We are going with smaller satellites in constellations." We must "move up the value chain and get services not pixels." This suggests a way to define a proposed "High risk" commercial system is whether it is a core contributor to the revised national security space architecture. If not, then the system / constellation in its entirety could be "Low risk" according to the Rule.